

REMARKS

The Examiner issued an Election Requirement and divided the parent application (s/n 10/246,954) into Group I claims 1-44, 59, and 60 in class 62, subclass 53.1 and Group II claims 45-58, in class 165, subclass 47. Applicants elected to proceed with the Group I claims in the parent case.

In an Office Action mailed on September 9, 2003 in the parent case, the Examiner allowed claims 1-8, 10-28, 32-37, 41-44, 59, and 60 and rejected claims 9, 29, 30, 31, 38, 39 and 40. The rejected claims in the parent case were canceled and a Notice of Allowance was mailed for the allowed claims.

The present continuation application was filed to further prosecute the rejected claims that have now been renumbered 1-7. In the industry, salt caverns are sometimes categorized as "compensated" or "uncompensated". The compensated caverns contain displacing liquid and the uncompensated caverns contain substantially no displacing liquid. In the summary of invention in U.S. Patent No. 5,511,905 (hereinafter "Bishop"), this displacing liquid is described as follows:

The cavern includes brine which is displaced up another flow bore formed by the concentric tubing and casing as the cold fluids pass down into the cavern.

The Bishop specification further describes the displacing liquid as follows at col. 5, lines 44-60:

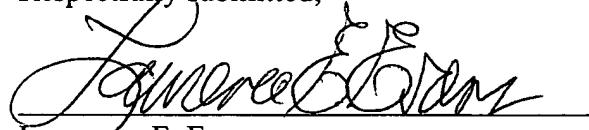
The immiscible displacing liquid 40 is disposed in underground cavern 10 with a cold fluid 50. The immiscible displacing liquid 40 will not mix with the cold fluid 50. Since the immiscible displacing 40 has a greater density than that of the cold fluid 50, the denser immiscible displacing liquid will settle to the bottom or lower are 28 of underground cavern 10 and separate in a separate phase from the cold fluid 50 which will accumulate at the top or upper area 32 of underground cavern 10. This separation into separate phases creates an interface 34 between the two fluids within the underground cavern 10. The cold fluid 50 and immiscible displacing liquid 40 completely fill the volume of cavity 36 of underground cavern 10 whereby as either the cold fluid 50 or immiscible

displacing liquid 40 are removed from underground cavern 10, the other fluid is flowed into underground cavern 10 to fill the volume which has been vacated.

The present application is directed to "uncompensated" caverns that have substantially no displacing liquid therein.

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Respectfully submitted,



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